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ABSTRACT

Vocational education can contribute to an improved United States productivity by producing an effective work force. People together with technology are two major factors in improving productivity, and they must be integrated. Industry is in the forefront of the efforts to improve productivity. It has encouraged management in long-range strategic planning, adopted the concept of quality circles, started to use robotics, and included in the overall productivity improvement program assessment centers, performance appraisals, and supervisory skills training programs. Effects from these efforts will not appear for at least a decade. Work in the area of the people--tomorrow's work force--should show results much sooner. Vocational education should adopt a pro-active innovative approach to producing new workers. An absolute must is development of a rapport/relationship with industry and business. The people responsible for business/industry liaison should learn the language and be able to provide feedback for designing programs based on real needs. Since the worker is also being acknowledged as a person and contributing member of the team, basic employability skills training is even more important. (YLB)

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VOCATIONAL EDUCATION AND PRODUCTIVITY

63RD Annual Convention
National Association of State Directors
of Vocational Education
Atlanta, Georgia
December 4, 1981

Robert Watson, Jr.

I WAS ASKED TO SPEAK TO YOU TODAY ABOUT THE ROLE OF VOCATIONAL EDUCATION AND PRODUCTIVITY. I WANT TO START BY TALKING ABOUT PRODUCTIVITY AND WHAT IT MEANS TO THE NATION. WE ALL KNOW THAT -- IN THE FINAL ANALYSIS -- ECONOMIC STRENGTH DEPENDS UPON THE ABILITY OF A COMPANY OR A NATION TO PRODUCE AT LOWER COSTS THAN THE COMPETITION. WE ALSO KNOW THAT WE IN THE UNITED STATES ARE NOT DOING WELL IN THE PRODUCTIVITY RACE WITH DISASTROUS RESULTS. AS THE HARVARD BUSINESS REVIEW PUT IT "THE PRODUCTIVITY LOCOMOTIVE OF ECONOMIC GROWTH WHICH HAD BEEN PUSHING AHEAD AT A RATE BETWEEN 2.5% and 3.0% PER YEAR, HAS CLEARLY STALLED.

DURING THE LAST DECADE, AMERICAN PRODUCTIVITY GREW ONLY HALF AS FAST AS IN THE DECADE BEFORE, AND THE GROWTH RATE IS STILL SLOWING DOWN. LAGGING PRODUCTIVITY GROWTH IS FEEDING INFLATION ... OUR STANDARD OF LIVING IS THREATENED, AND WE ARE LESS ABLE TO COMPETE IN THE WORLD MARKETS.

HOWEVER, THERE IS A LITTLE GOOD NEWS MIXED IN WITH THE BAD. THE AMERICAN WORKER IS STILL THE MOST PRODUCTIVE IN THE WORLD TODAY, BUT THE CANADIAN, FRENCH, WEST GERMAN, AND THE JAPANESE ARE MAKING GREAT STRIDES AND RAPIDLY CATCHING UP WITH US. IF YOU LOOK AT THE AVERAGE ANNUAL PRODUCTIVITY GROWTH IN THE SEVEN INDUSTRIALIZED NATIONS BETWEEN 1960 & 1977, YOU WILL FIND PRODUCTIVITY HAS BEEN GROWING FASTER IN JAPAN, FOLLOWED BY WEST GERMANY, ITALY, AND FRANCE. CANADA AND THE UNITED KINGDOM ALSO DID BETTER THAN WE DID IN THOSE SAME YEARS. SURE, THEY STARTED WITH A SMALLER BASE AND THEIR RATE OF GROWTH WOULD NATURALLY BE HIGHER THAN OURS. BUT THAT EXCUSE SHOULD NOT OBSCURE THE FACT THAT OUR GROWTH RATE HAS SLOWED DOWN.

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UNLESS WE DO SOMETHING ABOUT IT, BY 1990 SEVERAL COUNTRIES WILL HAVE OVER TAKEN THE UNITED STATES IN PRODUCTION PER EMPLOYEE. ONE FORECAST I SAW INDICATES THAT FRANCE WILL CATCH US IN 1986, GERMANY IN 1987, JAPAN IN 1988 AND CANADA IN 1990. I DON'T BELIEVE THE NUMBERS OR THE DATES ARE ALL THAT IMPORTANT. WHAT THEY IMPLY IS,IT'S A REAL DOWNTURN.

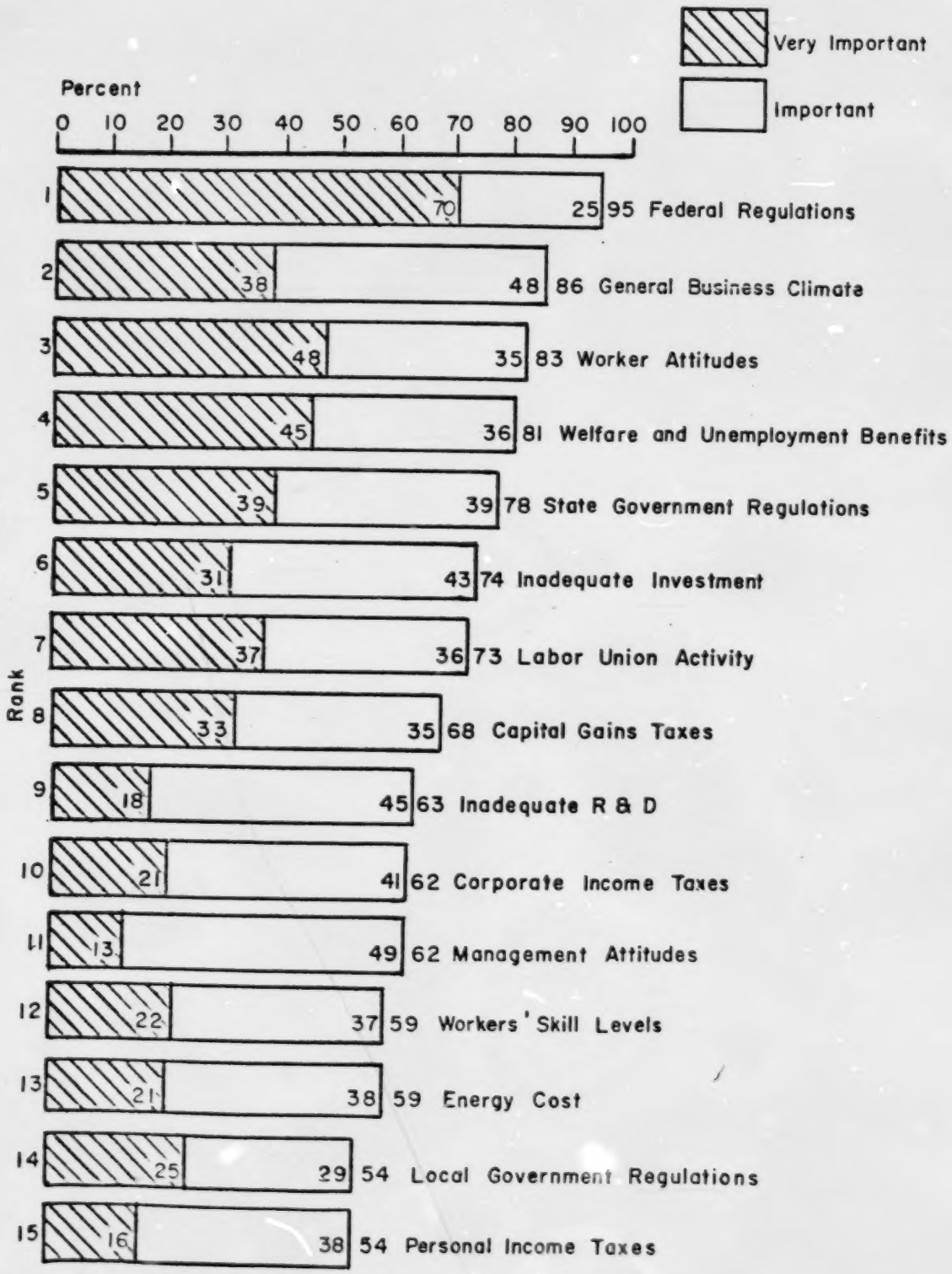
THERE ARE TWO MAJOR FACTORS IN IMPROVING PRODUCTIVITY -- PEOPLE AND TECHNOLOGY. PEOPLE MUST BE PROPERLY SELECTED, PLACED, TRAINED, MOVITATED, PROMOTED, AND WHEN NECESSARY TERMINATED. AND EQUIPMENT AND PROCESSES MUST BE UPGRADED CONTINUALLY TO INCORPORATE NEWLY AVAILABLE TECHNOLOGIES. THIS APPLIES TO INDUSTRY, BUSINESS OR EDUCATION.

THE TWO MAJOR FACTORS -- PEOPLE AND TECHNOLOGY -- MUST BE INTERGRATED WITH EACH OTHER. MANAGERS MUST BE SELECTED AND MOTIVATED TO MAKE PRODUCTIVITY IMPROVEMENT A WAY OF LIFE, (NOT JUST THE LATEST BUZZ WORD OR TECHNIQUE). AND MANAGERS MUST PLAN AND IMPLEMENT TECHNOLOGICAL IMPROVEMENTS IN SUCH A WAY THAT PEOPLE WILL BE MOTIVATED RATHER THAN ANXIOUS OR CONFUSED.

IF WE ACCEPT THE FACT THAT PRODUCTIVITY GROWTH IS NECESSARY FOR ECONOMIC GROWTH AND A COMPETITIVE POSITION IN THE WORLD MARKETS, THEN WE HAVE A PROBLEM, BUT HOW DID WE GET THERE? WHAT WERE THE CAUSES?...THE REASONS FOR OUR PROBLEM.

LET ME SHARE SOMETHING WITH YOU. THE RESULTS OF A SURVEY OF 1000 BUSINESS LEADERS WHO WERE ASKED TO IDENTIFY THE CAUSES FOR THE SLOW DOWN IN THE PRODUCTIVITY GROWTH RATE IN THE COUNTRY.

Causes for Slowdown in Productivity Growth Rate


Very Important
Important
Percent
0 10 20 30 40 50 60 70 80 90 100
Rank
1 70 25 95 Federal Regulations
2 38 48 86 General Business Climate
3 48 35 83 Worker Attitudes
4 45 36 81 Welfare and Unemployment Benefits
5 39 39 78 State Government Regulations
6 31 43 74 Inadequate Investment
7 37 36 73 Labor Union Activity
8 33 35 68 Capital Gains Taxes
9 18 45 63 Inadequate R & D
10 21 41 62 Corporate Income Taxes
11 13 49 62 Management Attitudes
12 22 37 59 Workers' Skill Levels
13 21 38 59 Energy Cost
14 25 29 54 Local Government Regulations
15 16 38 54 Personal Income Taxes

WORKER ATTITUDES, INADEQUATE INVESTMENT, INADEQUATE R & D IN MY MIND ARE ALL PART OF #11 MANAGEMENT ATTITUDES. THIS SURVEY WAS TAKEN IN 1978 AND I BELIEVE IF IT WERE TO BE TAKEN TODAY MOST MANAGERS WOULD LIST MANAGEMENT ATTITUDES MUCH HIGHER THAN #11 IF THEY ARE HONEST WITH THEMSELVES.

INDUSTRY IS IN THE FOREFRONT OF THE EFFORTS TO GET OUR PRODUCTIVITY LOCOMOTIVE GOING AGAIN, AS IS THE ADMINISTRATION WITH THE SUPPLY SIDE ECONOMIC STRATEGIES THEY HAVE PROPOSED. LET ME TALK FOR JUST A FEW MINUTES ABOUT SOME OF THE EFFORTS IN THIS AREA TO FILL YOU IN ON SOME OF THE THINGS THAT INDUSTRY IS DOING. WE ARE ENCOURAGING OUR MANAGEMENT TO BE THINKING AHEAD MORE. TO BE THINKING IN TERMS OF TOMORROW AND NOT ALWAYS TODAY. ALL TOO OFTEN, MANAGERS, AT ALL LEVELS, THINK IN TERMS OF TODAY'S PROBLEMS AND ARE SO ORIENTED TO BOTTOM LINE THINKING, THAT INVESTMENTS IN THE TIME AND/OR MONEY THAT MIGHT NOT PAY OFF IN 3 YEARS OR "NOW", ARE NOT ON THE TOP OF THE PRIORITY LIST. A GREAT DEAL OF LIP SERVICE IS GIVEN TO "TOMORROWS" BUT WHEN YOU, AS A MANAGER, ARE JUDGED ON "TODAY'S" PERFORMANCE, WHERE WOULD YOU SPEND YOUR TIME? SO WE ARE TRYING TO CHANGE THAT. FIVE-YEAR PLANS ARE SUBMITTED BY OPERATING MANAGERS WITH BOTH A WRITTEN AND ORAL PRESENTATION REQUIRED. IN OTHER WORDS, WE ARE ENCOURAGING <u>REAL</u> STRATEGIC PLANNING. WE HAVE ALSO EMBRACED AN AMERICAN CONCEPT DEVELOPED IN JAPAN...QUALITY CIRCLES...THERE ARE THOUSANDS IN PLACE. OUR WESTINGHOUSE BALTIMORE DEFENSE CENTER HAS MORE THAN 70 OF THESE AND THEY HAVE BEEN VERY SUCCESSFUL. THEY COVER ABOUT 4500 BLUE COLLAR WORKERS IN THAT PLANT ALONE. WE ALSO ARE GETTING INTO ROBOTICS AND THEY HAVE PAID OFF IN CONSISTENCY AND QUALITY IN THE MANUFACTURE OF THE PRODUCT. ASSESSMENT CENTERS AND PERFORMANCE APPRAISALS REALISTICALLY TIED TO THE JOB REQUIREMENTS, AS WELL AS OBJECTIVES, ARE PART OF THE OVERALL PRODUCTIVITY IMPROVEMENT PROGRAM, ALONG WITH SUPERVISORY SKILLS TRAINING PROGRAMS. NEEDLESS TO SAY, COST IMPROVEMENT PROGRAMS, R & D, AND ALL THE

OTHER STANDARD APPROACHES ARE ALSO GETTING THEIR SHARE OF THE MANAGER'S ATTENTION, AND MANY, MANY OTHER COMPANIES ARE DOING THESE THINGS AND MORE. IN SEPTEMBER OF 1980, A WESTINGHOUSE PRODUCTIVITY CENTER WAS FOUNDED. IT COMPRISES THESE DEPARTMENTS: MANUFACTURING TECHNOLOGY, CORPORATE SYSTEMS INTEGRATION, PRODUCTION METHODS AND MEASUREMENTS, CORPORATE QUALITY, AND VALUE AND OPERATIONS ANALYSIS.

THEY WILL HELP DIVISIONS OF THE COMPANY TO IMPROVE MANUFACTURING PERFORMANCE AND TO IMPLEMENT STATE-OF-THE-ART TECHNOLOGY IN EQUIPMENT AND METHODS.

IN NEW PLANTS, WE ARE COMMITTED TO AUTOMOATION -- THAT MEANS ROBOTS AND ALL THE LATEST. IN EXISTING PLANTS, WE LOOK FOR LOW-COST AUTOMATION. THIS MEANS THAT WE TRY TO INCREASE PRODUCTIVITY WITHOUT DISTURBING THE LINE, WITHOUT LARGE CAPITAL INVESTMENT, AND WITH LITTLE PRODUCT REDESIGN.

THEY HAVE ASSEMBLED A TEAM OF ENGINEERS WITH EXPERTISE IN ALL TECHNOLOGIES--MANUFACTURING ENGINEERING, PROCESSES, MATERIAL HANDLING, INDUSTRIAL ENGINEERING, AND THE LIKE. THESE PEOPLE WILL SURVEY INDUSTRY INSIDE AND OUTSIDE THE CORPORATION TO LEARN WHAT OTHERS ARE DOING AND WILL GO OUT TO WESTINGHOUSE PLANTS TO ADVISE ENGINEERS ON HOW TO UPGRADE OPERATIONS. ON A COMPANY-WIDE SCALE, THE GROUP IS NOW SURVEYING OUR MACHINE TOOL INVENTORY, DETERMINING WHERE TO RETROFIT OR REPLACE, AND CONSIDERABLE RETROFIT IS UNDER WAY.

WELDING AND JOINING PRODUCTIVITY IS THE RESPONSIBILITY OF THE PROCESS ENGINEERING GROUP, A PART OF PRODUCTION METHODS AND MEASUREMENTS.

THIS GROUP WILL DO NO WELDING RESEARCH OF ITS OWN (SINCE WE HAVE AN EXTENSIVE WELDING PROGRAM AT OUR RESEARCH LABS). CONSISTENT WITH THE GOALS OF THE PRODUCTIVITY CENTER THEY WILL LOOK FOR APPLICATIONS FOR EXISTING TECHNOLOGY.

THE GROUP HAS SURVEYED WELDING TECHNOLOGY, AND HAS SO FAR TARGETED FIVE AREAS THAT PROMISE INCREASES IN JOINING PRODUCTIVITY AT WESTINGHOUSE PLANTS LASER WELDING AND CUTTING, REAL TIME NDT, RESISTANCE WELDING EQUIPMENT RETROFIT, INDUCTION BRAZING, AND ADHESIVE BONDING. THE CENTER WILL BE DOING ALL THIS AND MORE.

I'VE TALKED ABOUT THE PROBLEM AND POSSIBLE CAUSES, BUT, REGARDLESS OF HOW WE GOT THERE, IT IS OBVIOUS THAT WITH COMPANIES LIKE WESTINGHOUSE PUTTING SO MUCH MONEY INTO THEIR EFFORT, A REAL PROBLEM DOES EXIST! A SERIOUS PROBLEM! THE GOVERNMENT'S SOLUTION TO THE PROBLEM IS MONEY. THE REAGANOMICS WE HEAR ABOUT DESIGNED TO STIMULATE INDUSTRY. IN INDUSTRY, THE GREATEST THRUST IS IN TECHNOLOGY, ROBOTICS, CAPITAL EQUIPMENT AND IMPROVEMENT IN TODAY'S WORK-FORCE, BOTH MANAGEMENT AND BLUE COLLAR THAT I MENTIONED. I AM SURE ALL OF THESE EFFORTS WILL PAY OFF. HOW MUCH EFFECT EACH WILL HAVE, I DON'T KNOW, BUT MORE IMPORTANTLY, WHEN THEY'LL BECOME EFFECTIVE IS DIFFICULT TO DETERMINE. SOME ECONOMISTS HAVE ESTIMATED THAT IT MAY TAKE 10 YEARS OR LONGER FOR AMERICAN INDUSTRY AS A WHOLE TO GENERATE THE KIND OF DOLLARS REQUIRED TO SUPPORT THIS MASSIVE EFFORT IN THE AREA OF R&D, CAPITAL EQUIPMENT, AND FACILITY IMPROVEMENT. BUT, IN MY OPINION, THERE IS ONE AREA THAT WE CAN WORK IN AND START SHOWING RESULTS A LOT SOONER AND WITH RELATIVELY LITTLE COST. THAT AREA IS THE WORK FORCE, THE PEOPLE, THE ASSET OR RESOURCE THAT, IN MY OPINION, AMERICAN INDUSTRY HAS NEGLECTED FOR YEARS. THERE HAS BEEN SOME ACTION IN THIS AREA. THE QUALITY CIRCLES I MENTIONED, MANAGEMENT TRAINING AND QUALITY OF WORK LIKE PROGRAMS. THESE ARE AIMED AT TODAY'S WORK FORCE, BUT THERE IS ANOTHER WORK FORCE WE MUST CONSIDER AND START TO WORK WITH TODAY, AND THAT'S TOMORROW'S WORK FORCE. THIS IS WHERE YOU COME IN, AND WHERE YOU CAN CONTRIBUTE GREATLY WITH TODAY'S AND IN PARTICULAR "TOMORROW'S WORK FORCE.

AS PROFESSIONALS IN THE FIELD TODAY, YOU ARE INDEED FORTUNATE, BECAUSE OF THE PRODUCTIVITY PROBLEM FACING THE NATION, BECAUSE OF THE TREMENDOUS INTEREST NATIONWIDE AND BECAUSE OF THE CONSEQUENCES FACING OUR NATION IF THIS PROBLEM ISN'T SOLVED, YOU WILL NEVER HAVE A BETTER OPPORTUNITY TO MAKE YOURSELF HEARD AND APPRECIATED BY INDUSTRY AND BUSINESS FOR THE STRONG POSITIVE FORCE THAT YOU ARE. NOW IS THE TIME FOR A VERY PRO-ACTIVE, INNOVATIVE APPROACH TO YOUR JOB AS IT RELATES TO YOUR CUSTOMER; AND I USE THAT WORLD ADVISEDLY. YOU ARE A PART OF THE TEAM PRODUCING A PRODUCT, THE NEW WORKER, FOR BUSINESS, AND INDUSTRY. IN THE PAST, INDUSTRY WAS QUICK TO COMPLAIN ABOUT THE LACK OF BASIC SKILLS OR APPRECIATION FOR WORK, BUT NOT IN A CONSTRUCTIVE MANNER. AT LEAST NOT IN MY OPINION. SO I'M NOT TALKING ABOUT A PROBLEM WITH THE EDUCATORS, BUT ONLY ABOUT YOUR SHARE IN SOLVING A MUTUAL PROBLEM, A BREAKDOWN IN THE SYSTEM. I THINK YOU'LL FIND A CHANGE TODAY IN THAT COMPLAINING APPROACH. I BELIEVE YOU SHOULD ADOPT THE "PRODUCT" APPROACH AND PRESENT YOUR SIDE OF THE STORY IN THAT LIGHT AND I THINK YOU'LL GET GREATER COOPERATION AND DEVELOP A RAPPORT WITH YOUR CUSTOMER THAT IS A MUST FOR REAL COOPERATIVE EFFORT. I MIGHT ADD THAT I DON'T THINK THE RECENT OR MOST RECENT COMPLAINTS OF INDUSTRY ABOUT YOUR PRODUCT INDICATES A POOR JOB ON YOUR PART, AS MUCH AS IT INDICATES THAT INDUSTRY REALIZES IT NEEDS MORE. WE ARE PAYING MUCH MORE ATTENTION TO YOUR PRODUCT THAN WE EVER HAVE. WE HAVE COME TO RECOGNIZE YOUR PRODUCT AS THE VITAL RESOURCE THAT IT IS AND ALWAYS HAS BEEN. I AM AWARE OF THE FINE JOB YOU ARE DOING NOW BECAUSE I'VE WORKED VERY CLOSELY WITH VOCATIONAL EDUCATORS IN FLORIDA. BUT AS A REPRESENTATIVE OF INDUSTRY, I HAVE SOME OBSERVATIONS AND A FEW SUGGESTIONS THAT MIGHT HELP YOU BECOME EVEN MORE EFFECTIVE.

FIRST DEVELOP THE RAPPORT/RELATIONSHIP WITH INDUSTRY AND BUSINESS I MENTIONED. THIS I BELIEVE IS AN ABSOLUTE MUST. REMEMBER, THEY ARE YOUR CUSTOMER AND YOU ARE THE SUPPLIER OF A PRODUCT ESSENTIAL TO THEIR BUSINESS. IN ANY PLANT I HAVE EVER BEEN ASSOCIATED WITH, IF WELD WIRE, STEEL PLATE, PAPER CLIPS, OR CASTINGS ARE DELIVERED AND DO NOT MEET THE PURCHASE SPECIFICATIONS, THERE IS NO HESITATION TO GET A HOLD OF THE SUPPLIER AND COMMUNICATE IN DETAIL THE DEVIATIONS FROM THE SPECIFICATION AND DEMAND SATSIFACTION. IN MANY CASES WE WOULD WORK VERY CLOSELY WITH THE SUPPLIER TO GET THE CORRECTIONS MADE. WHY SHOULD IT BE ANY DIFFERENT WITH YOUR PRODUCT? ... BUT IT IS. IN MOST CASES, THE CUSTOMER MIGHT COMPLAIN, BUT NOT REALLY COMMUNICATE. THAT'S THE KEY. THEY HAVE TO BE ENCOURAGED TO COMMUNICATE, IN A CONSTRUCTIVE MANNER, WHAT THEY SEE AS THE SHORT COMINGS OF THE "PRODUCT" AND BECOME A FULL PARTNER IN THE CORRECTIVE ACTION TO BE TAKEN. IT WON'T BE LIKE STEEL PLATE OR PAPER CLIPS, YOU CAN'T TAKE THEM BACK AND SUPPLY NEW ONES, BUT YOU CAN GO BACK TO YOUR " PLANT" AND START MAKING CHANGES AND ADJUSTMENTS IN YOUR ASSEMBLY LINE TO CORRECT AND OVERCOME THE DEFICIENCIES. YOU KNOW, ALL TOO OFTEN, THE OTHER REACTION IN INDUSTRY IS TO TRY TO SOLVE THE PROBLEM IN-HOUSE "WE'LL TRAIN THEM OURSELVES, WE KNOW WHAT WE WANT AND NEED. YOU CAN'T TALK TO EDUCATORS ANYWAY, THEY DON'T UNDERSTAND." YOU'LL NEVER HEAR THAT SAID ABOUT OTHER SUPPLIERS, WHY SHOULD THEY TAKE THAT APPROACH WITH YOU? IT COST THEM MONEY AND TIME AND IN MANY CASES THE EFFORT IS GOING TO BE MADE BY PEOPLE WITH LITTLE OR NO SKILLS IN TRAINING OR DEVELOPING PEOPLE. WOULDN'T IT BE SMARTER AND MUTUALLY BENEFICIAL TO WORK TOGETHER TO CORRECT TODAY'S PROBLEMS AND AVOID TOMORROW'S?... WOULDN'T THE DOLLARS SPEND TO SET UP A SPECIAL IN-HOUSE PROGRAM BE BETTER UTILIZED AND MINIMIZED IN THE FORM OF EQUIPMENT OR MATERIAL DONATIONS TO AN EXISTING EDUCATIONAL FACILITY?

HOW DO YOU GET THEM TO BECOME FULL PARTNERS? HOW DO YOU GET INDUSTRY REALLY INTERESTED? FIRST THINK ABOUT TAKING THE PRO-ACTIVE APPROACH I MENTIONED. REVIEW YOUR ORGANIZATION AND IDENTIFY THE PEOPLE RESPONSIBLE FOR INDUSTRY AND BUSINESS LIAISON AND GIVE PRIORITY TO THEIR EFFORTS. ENCOURAGE THEM TO LEARN THE LANGUAGE, SUCH AS RETURN ON INVESTMENT, BOTTOM LINE, PRODUCT QUALITY, QUALITY ASSURANCE AND CAPITAL EXPENDITURES. HAVE THEM LEARN AS MUCH AS THEY CAN ABOUT THE PRODUCT AND THE PLANT. IDENTIFY SOMEONE IN THE ORGANIZATION WHO IS CHARGED WITH GETTING THE PRODUCT OUT THE DOOR USING YOUR "PRODUCT". THEY'LL HAVE FIRST HAND INFORMATION AND YOU'LL BE SURE TO DESIGN A PROGRAM AROUND REAL NEEDS AND NOT SECOND OR THIRD HAND INFORMATION. THIS FEEDBACK WILL BE INVALUABLE FOR BOTH TODAY'S AND TOMORROW'S WORK FORCE. I BELIEVE THAT AN APPROPRIATE WAY TO MAKE CONTACT WITH A NEW CUSTOMER, WHERE NO PAST ASSOCIATON EXISTS, OR WHERE A CONTACT ISN'T REALLY IDENTIFIABLE, WOULD BE TO DO WHAT ANY OTHER SUPPLIER WOULD DO. SUBMIT A PROPOSAL THROUGH THE PURCHASING DEPARTMENT, WITH A COPY TO THE TOP MAN ALSO. THE LETTER OF TRANSMITTAL SHOULD UTILIZE THEIR BUZZ WORDS. A PRODUCT, RETURN-ON-INVESTMENT, ETC., AND WITH AN OUTLINE OF THE SERVICES YOU CAN PROVIDE, RELATING TO TODAY AND TOMORROW'S WORK FORCE. MAKE SURE YOU REQUEST THAT THE INFORMATION BE ROUTED TO THE LINE MANAGERS WHO WOULD HAVE THE MOST TO GAIN FROM AN IMPROVED PRODUCT. WHILE I'M SUGGESTING YOU BECOME MORE PRO-ACTIVE AND TAKE THE INITIATIVE, I WOULD RECOMMEND INDUSTRY TO DO THE SAME AND I BELIEVE THEY ARE STARTING TO DO JUST THAT. YOUR REPRESENTATIVE MAY BE PLEASANTLY SURPRISED TO BE MET HALF WAY.

THERE IS ANOTHER MAJOR CHANGE TAKING PLACE IN INDUSTRY THAT WILL AFFECT YOU. THE DEVELOPMENT AND IMPROVED UTILIZATION OF THIS ASSET, THE WORK FORCE, INVOLVES MORE THAN JUST SKILLS IMPROVEMENT. THIS APPROACH ALSO ACKNOWLEDGES THE WORKER AS A REAL PERSON ENTITLED TO THE RESPECT OF THE ORGANIZATION AS A VALUABLE CONTRIBUTING MEMBER OF THE TEAM. QUALITY CIRCLES, THE QUALITY OF WORKLIFE PROGRAMS, ASSESSMENT CENTERS AND MANY OTHER PROGRAMS APPROACH THE PROBLEM FROM THE "PEOPLE" STANDPOINT. THIS APPROACH IN INDUSTRY WILL SLOWLY CHANGE THE CHARACTER OF THE WORK FORCE. IT HAS ALWAYS BEEN A REQUIREMENT THAT NEW EMPLOYEES HAVE BASIC EMPLOYABILITY SKILLS TRAINING; BUT NOW THAT TRAINING IS GOING TO BE EVEN MORE IMPORTANT, THE NEW EMPLOYEE SHOULD BE PREPARED TO ENTER THIS ATMOSPHERE.THAT MIGHT BE DESCRIBED MANY WAYS, BUT SOME THAT ARE POPULAR NOW ARE PARTICIPATIVE MANAGEMENT, THEORY Z, OR TYPE 4.* IT WILL BE A MUST FOR THEM TO UNDERSTAND AND APPRECIATE THE PROFIT MOTIVE, BUT MORE IMPORTANTLY, TO BE READY AND ABLE TO CONTRIBUTE TO PROBLEM SOLUTION, TO ACT AND FEEL A PART OF THE TEAM.... TO BE ABLE TO COMMUNICATE.... THE BURDEN OF MAKING THAT CONCEPT WORK IN INDUSTRY IS MANAGEMENT'S, OF COURSE, BUT YOUR PRODUCT MUST BE ABLE TO FIT INTO THE TEAM OPERATING IN THE NEW MODE.

I BELIEVE YOU MUST DEVELOP A PROGRAM OF EMPLOYABILITY SKILLS THAT WILL ADDRESS THE OLD "ATTITUDE" PROBLEM. WE ARE REALLY TALKING ABOUT BEHAVIORS, BEING ON TIME, CLEANING UP, IN OTHER WORDS, GENERAL WORK HABITS. I RECENTLY READ AN ARTICLE CONCERNING A STUDY BY THE DEAN OF THE UCLA SCHOOL OF EDUCATION, ENTITLED "STUDY OF SCHOOLING". AMONG OTHER THINGS, THEY FOUND THAT IN SCHOOLS, PERHAPS NOT ALL SCHOOLS, A 15 MINUTE RECESS LASTED 30 MINUTES. THE 30 MINUTE LUNCH LASTED 45 MINUTES TO AN HOUR AND CLEAN UP AT THE END OF THE DAY TOOK 30 MINUTES INSTEAD OF THE 5 OR 6 MINUTES REALLY NEEDED.

THESE THINGS THEY ARE TALKING ABOUT ARE ESSENTIALLY SCHOOL WORK HABITS... CHANGE RECESS TO COFFEE BREAK AND YOU'RE NOW TALKING WORK HABITS IN AMERICAN INDUSTRY. OBVIOUSLY, PROBLEMS LIKE THESE IN THE SCHOOLS MUST BE ADDRESSED BY THE TEACHERS AND ADMINISTRATION AND IN INDUSTRY, IT IS MANAGEMENT'S RESPONSIBILITY, BUT PERHAPS YOU CAN UNDERSCORE IN AN EMPLOYABILITY SKILLS PROGRAM THE NEED TO FOLLOW RULES AND REGULATIONS ON THE JOB. IT WOULD APPEAR, IF THE STUDY IS CORRECT, THAT THE PRODUCT HAS BEEN TURNED OUT WITH SOME BUILT-IN DEFICIENCIES.

IF YOU ARE NOT ACTIVELY INVOLVED NOW IN THE REVITALIZATION OF AMERICAN INDUSTRY, THIS IS YOUR CHANCE TO SIGN-UP, TO JOIN THE GROWING ARMY OF PEOPLE DEDICATED TO SOLVING OUR PRODUCTIVITY PROBLEM WORKING THROUGH PEOPLE. YOU ARE A VERY IMPORTANT PART OF AN ORGANIZATION PRODUCING A PRODUCT, FUTURE WORKERS, (WELDERS, MACHINISTS, SYSTEMS ANALYISTS, ENGINEERS) FOR A CUSTOMER, BUSINESS & INDUSTRY, WHO ARE STRUGGLING TO MEET FOREIGN COMPETITION. THERE WAS A TIME WHEN WE THOUGHT WE WERE ECONOMICALLY INVULNERABLE. WE SEEMED TO HAVE UNLIMITED RESOURCES. WE HAD A STANDARD OF LIVING SECOND TO NONE. OUR PRODUCTS WERE THE TECHNOLOGICAL AND QUALITY STANDARD OF THE WORLD. AMERICAN COMPANIES USUALLY FOUND THEIR CHIEF INTERNATIONAL COMPETITON AMONG OTHER AMERICAN COMPANIES. WE WERE THE UNQUESTIONED WORLD INDUSTRIAL LEADER... BUT THOSE DAYS ARE BEHIND US. TIMES HAVE CHANGED AND WE HAVE TO CHANGE WITH THEM. OUR COMPETITON TODAY IS WORLD WIDE AND WE HAVE LOST OUR COMPETITIVE EDGE. IN ORDER TO BE MORE COMPETITIVE, WE MUST BE MORE PRODUCTIVE AND IF WE CAN'T COUNT ON SUPERIORITY IN TECHNOLOGY, DOLLARS AND THE LIKE, WE HAD BETTER COUNT ON THIS MOST IMPORTANT RESOURCE -- THE PEOPLE. WE MUST DEVELOP THE PEOPLE INTO THE EFFECTIVE PRODUCTIVE WORK FORCE THEY SHOULD AND CAN BE.

I KNOW YOU HAVE HEARD ALL OF THIS BEFORE... THE PRODUCTIVITY PROBLEM THE VARIETY OF CAUSES, THE MULTITUDE OF SOLUTIONS BEING PROPOSED OR IMPLEMENTED BY INDUSTRY AND GOVERNMENT. BUT I FELT IT NEEDED REPEATING. ALL OF THE PROGRAMS AND PROPOSALS, ALMOST WITHOUT EXCEPTION, WILL HAVE ONE COMMON ELEMENT, PEOPLE.

REGARDLESS OF THE OUTCOME OF THE SUPPLY SIDE ECONOMICS, INDUSTRY'S RUSH TO ROBOTICS, INCREASED R & D, QUALITY CIRCLES OR ANY CHANGES IN FEDERAL, STATE OR FOREIGN REGULATIONS, THE KEY TO THE REVITALIZATION OF THE AMERICAN ECONOMY IS A HIGHLY TRAINED PRODUCTIVE WORK FORCE. YOUR CONTRIBUTION CAN BE AND SHOULD BE IMMENSE. IN THE PAST, AS A SUPPLIER OF A PRODUCT FOR YOUR CUSTOMER, YOU WERE NOT PRIVILEDGED TO HAVE THE VITAL FEEDBACK ANY SUPPLIER NEEDS TO ASSURE THE DELIVERY OF A QUALITY PRODUCT. LACK OF COMMUNICATION CAUSED THE FEEDBACK LOOP TO REMAIN OPEN AND INEFFECTIVE. IT MUST BE CLOSED AND IT HAS TO BE A JOINT EDUCATION AND INDUSTRY EFFORT.

ESSENTIALLY ALL OF US, MANAGER'S, WHITE COLLAR, BLUE COLLAR, EDUCATORS, ALL OF US ARE COMPETING WITH OUR COUNTERPARTS IN ALL THOSE COUNTRIES NOW THREATENING OUR POSITION AS A WORLD LEADER IN THE INDUSTRIAL COMMUNITY. SPEAKING FOR MYSELF, I DON'T SEE ANY REASON FOR OUR NOT WINNING THE COMPETITION. IT WON'T BE EASY... WE WILL ALL HAVE TO REACH OUT... TO TAKE THAT EXTRA STEP, BUT IT CAN BE A VERY, VERY REWARDING EXTRA STEP.

SO PLEASE ACCEPT THE CHALLENGE, HELP US PLACE FIRST IN THIS COMPETITION.

THANK YOU.